

What is claimed is:

1. A data reorganization method in a RAID system using a striping technique comprising the steps of:

5 (a) determining whether an additional disk exists in a storage medium of the system;

(b) checking whether there exists any data stored at a reorganization-requested location for a disk write operation if there exists the additional disk; and

10 (c) moving a reorganization-requested data to the reorganization request location if there is no data stored in the reorganization-requested location.

2. The method of claim 1, wherein if it is determined in
15 the step (b) that there is data stored in the reorganization-requested location, a requested disk write operation block is stored in sequence in the added disk starting from an end portion thereof and wherein the method further comprises the step of updating the physical
20 information stored in the added disk to the requested block information of the reorganization table.

3. The method of claim 1, further comprising the steps of:

25 repeatedly calculating write blocks in a chain reaction affected by the requested block after the updating

process is completed and investigating a block which has undergone the chain reaction reorganization process;

moving the investigated block to the added disk and reflecting physical information for the movement to the reorganization table; and

calculating a block to be moved to an original location of the block stored in the added disk, moving the calculated block to said location and reflecting physical information for the movement to the reorganization table.

4. The method of claim 3, wherein the block movement operation process is conducted until the reorganization of the requested write operation block is terminated.

5. The method of claim 1, wherein a lock function is utilized in case the reorganization table is modified in order to provide a multiple user service.

6. The method of claim 1, wherein the reorganization table is initialized for all the information stored in the disk after the step (c) is conducted or at an early time when a disk additional operation occurs.

7. The method of claim 2, wherein a free space manager manages free space in the added disk in order to store the block for which the write operation is requested from an end

portion of the added disk.